

## REMARKS

As a preliminary matter, Applicants amended claim 13 as suggested by the Examiner, and request withdrawal of the objection on this basis.

Claims 1, 4, 10, 13 and 16 stands rejected under 35 U.S.C. 102(e) as being anticipated by Chaudhuri et al. (U.S. Patent No. 6,223,171, hereinafter “Chaudhuri ‘171”). In response, Applicants amended claims 1, 4, 10, 13 and 16 to clarify that the index is generated dynamically if the cost is higher than retrieval being performed without generating an index dynamically, and respectfully traverse.

Chaudhuri ‘171 is directed to a what-if index analysis utility for database systems. Chaudhuri ‘171 has a database administrator using a what-if index analysis UI 250. That is, a database administrator may use a HCA engine 240 in a variety of manners to analyze the design of a database system 200 and modify the design as desired. (See col. 23, lns.15-19). Chaudhuri ‘171 fails to disclose dynamic generation of an index. Rather, a database administrator decides to build a two-column index and schedule the index to be built at midnight, for example. (See col. 24, lns. 4-6). More specifically, Chaudhuri ‘171 is directed to a static index and not a dynamic index.

In contrast, independent claims 1, 10, 13 and 16 are amended to recite the feature of a dynamic index. In particular, an index corresponding to a retrieval condition can be generated dynamically based on a cost comparison result. Data can also be retrieved by using the dynamically generated index. Accordingly, a new index can be generated dynamically or automatically, unlike Chaudhuri '171, which requires a database administrator to explore different hypothetical configurations to determine whether or not a new index should be generated. (See col. 23, lns. 48-67).

In the present invention, the system includes a lifetime management process for an index. Since the index is not visible to a user, it is necessary to perform management of the index automatically or dynamically, as shown in FIG. 15. Since Chaudhuri '171 fails to disclose or suggest a dynamic index, withdrawal of §102 rejection of claims 1, 4, 10, 13 and 16 is respectfully requested.

Claims 3, 8, 12 and 15 stands rejected under 35 U.S.C. 103(a) being unpatentable over Chaudhuri '171, and further in view of Chaudhuri et al. U.S. Patent No. 6,169,983 B1, (hereinafter "Chaudhuri '983"). Applicants traverse the rejection for the reasons recited above with respect to §102 rejection of claims 1, 4, 10, 13 and 16.

Chaudhuri '983 discloses an index merge tool that helps form an index configuration or set of indexes that consume less storage space. The index configuration is used by a database server in accessing a database in accordance with a workload of queries. Chaudhuri '983 is concerned with an operation that is directed to an already existing index (i.e., static index), and that is performed by a user. Chaudhuri '983 does

not disclose or suggest using a dynamic index. Accordingly, the combination of Chaudhuri '171 and Chaudhuri '983 fails to disclose or suggest a dynamic index, as recited in amended claims 3, 8, 12 and 15. For this reason, withdrawal of §103 rejection is respectfully requested.

Claims 2, 5-7, 11 and 14 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Chaudhuri '171, and further in view of Smith et al. (U.S. Patent No. 5,404,510 A). In response, Applicants amended claims 2, 6, 11 and 14 to recite the feature of a dynamic index, and respectfully traverse the rejection for the reasons recited above with respect to the §102 of claims 1, 4, 10, 13 and 16.

Smith is cited by the Examiner for teaching a first index which satisfies a condition wider than a retrieval condition existing among already generated indexes, and generating a second index. Smith does not disclose or suggest using a dynamic index, as now recited in amended claims 2, 6, 11 and 14. Accordingly, the combination of Chaudhuri '171 and Smith fails to disclose or suggest a dynamic index. Applicants respectfully request withdrawal of the §103 rejection of claims 2, 5-7, 11 and 14.

Claim 9 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Chaudhuri '171 and Chaudhuri '983, and further in view of Smith. Applicants traverse the rejection for the reasons recited above with respect to §103 rejection of independent claim 3.


Since claim 9 depends upon claim 3, it necessarily includes all of the features of its associated independent claim plus other additional features. Thus,

Applicants submit that the §103 rejection of claim 9 has also been overcome for the same reasons mentioned above to overcome rejection of independent claim 3. Applicants respectfully request that §103 rejection of claim 9 also be withdrawn.

For the foregoing reasons, Applicants believe that this case is in condition for allowance, which is respectfully requested. The Examiner should call Applicants' attorney if an interview would expedite prosecution.

Respectfully submitted,

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